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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,214	12/27/2004	Eberhard Ammermann	5000-0110PUS1	7324
2292 7590 02/07/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER QAZI, SABIHA NAIM	
			ART UNIT 1612	PAPER NUMBER
			NOTIFICATION DATE 02/07/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/519,214

Applicant(s)

AMMERMAN ET AL.

Examiner

Sabiha Qazi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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Non-Final Office Action

Claims 1 and 3-8 are pending. No claim is allowed at this time. The finality of that action is withdrawn because new rejection is being made.

Summary of this Office Action dated January 22, 2008

1. Information Disclosure Statement
2. Copending Applications
3. Specification
4. 35 USC § 103(a) Rejection
5. Data in Specification and Declaration
6. Response to Remarks
7. Communication

Information Disclosure Statement

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Copending Applications

Applicants must bring to the attention of the examiner, or other Office official involved with the examination of a particular application, information within their knowledge as to other copending United States applications, which are "material to patentability" of the application in question. MPEP 2001.06(b). See *Dayco Products Inc. v. Total Containment Inc.*, 66 USPQ2d 1801 (CA FC 2003).

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

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evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1 and 3-8 rejected under 35 U.S.C. 103 (a) as being unpatentable over SCHOOR (US 2,976,296), XP-002274262 anonymously disclosed "combination of microbicides for improved plant protection in pomefruit" (IDS reference filed on Jan. 13, 2006), BOSSELAERS et al. (6,174,911), and HOLMWOOD et al, (EPA 040345).

US '296 teaches that 2,3-dicyano-1,4-dithia-anthra-quinone (dithianon) was well tolerated by plants. The compound contains substantially higher fungicidal activity than the best fungicides available in the market. For purpose of testing the fungicidal activity, very different fungi were used such as *Rhizoctonia solani*, *Yenturia inaeqtialis* and *Alternaria Spec*. The fungicidal activity of the compound was found on the average about twice as high as that of the best available commercial products such as TMTD, Captan and Ziram. It further teaches that **the compounds can be applied simultaneously with other known pesticides**. See formula II and lines 38-63 in column 1 and lines 10-24 in column 2.

XP reference teaches the combination of 1, 2, 4-triazolyl derivative (compound A) with one or more commercially marketed fungicides. The reference further teaches that addition of such commercial fungicides improves fruit quality by reduction or prevention of fruit-skin russetting. Such fungicidal mixtures achieve in many cases synergistically increase activities.

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List of compounds include **dithianon**. See the abstract. This compound is labeled as formula I in claim 1 of the present invention.

US '911 teach **epoxiconazole** (BASF 480) as antifungal compound. See lines 64-67 in column 1 and compound of formula II in column 2. This compound is labeled II-2 in claim 1 of the present invention.

EPA '345 teaches **tebuconazole** as fungicide; see the abstract and formula I-4 on page 43. This compound is labeled II-4 in claim 1 of the present invention.

Instant claims differ from the cited references in claiming a synergistic combination of dithianon (I) and tebuconazole (II-2) or epoxiconazole (II-4) in claiming combination in 16:1 to 4:1 ratio.

Since the synergism has not been shown for the ratios 16:1 to 4:1, combination of known fungicides for the same purpose has been considered obvious because synergism cannot be predicted for all the ratios as has been claimed. It would have been obvious to one skilled in the art to prepare additional beneficial compositions by combining dithianon with epoxiconazole and/or tebuconazole which are known to be excellent fungicides as taught by the prior art. It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in the prior art. See *In re Kerkhoven*, 205 USPQ 1069.

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No criticality and/or unexpected results are noted. See KSR Supreme Court of United States Decision (Decided April 30, 2007, KSR INTERNATIONAL CO. v. TELEFLEX INC. et al. No. 04-1350) where it states that (1) "However, the issue is not whether a person skilled in the art had the motivation to combine the electronic control with an adjustable pedal assembly, but whether a person skilled in the art had the motivation to attach the electronic control to the support bracket of pedal assembly". (2) "the results of ordinary innovation are not the subject of exclusive rights under the patent laws". In the present case the composition as claimed would have been obvious to one skilled in the art at the time the invention was made in absence of showing the synergism of all the claimed ratios.

In the light of the forgoing discussion, the Examiner's ultimate legal conclusion is that the subject matter defined by the instant claims would have been obvious within the meaning of 35 U.S.C. 103(a).

Data in Specification and Declaration

Declaration filed by Dr Egon Haden on 12/20/2007 has been fully considered but was not found persuasive because the difference between observed and expected are very small and are not considered synergistic. The combinations of active fungicides would have been obvious for the reasons cited above. Specification discloses efficacy in % of the untreated control (table C) for individual active compounds examples 24, 26 and 27 on page 11. Efficacy of compound I, example 24 (dithianon) is zero at all tested concentrations i.e. 4, 1 and 0.25.

Combination of dithianon and epoxiconazole (I + II-2), examples 33-36, on pages 11 and 12

In example 33 combinations is as follows:

Efficacy of individual Dithianon at conc. 4, 1 and 0.25 ppm is 0

Efficacy of individual Dithianon (I) at concentration 0.25 ppm= 0

Epoxiconazole (II-2) at concentration 1 ppm = 75

Combination of I + II-2 = 75 is the observed efficacy which is the same as individual epoxiconazole. There is no synergism.

Same issue is with example 34 on page 11. In examples 35 and 36 on page 12, efficacy of individual II-2 is 75, observed is 82 and 88 which is not very different and not synergistic.

Combination of dithianon and tebuconazole (I + II-4), examples 37-41 on page 12

Efficacy of individual Dithianon at conc. 4, 1 and 0.25 is 0

Efficacy Dithianon (I) at concentration 1 ppm= 0 (anything multiplied by zero is zero, so $4 \times 4 = 16$ the efficacy should be zero.

Tebuconazole (II-4) at concentration 1 ppm = 75

Example 37 on page 12, combination of I + II-4 = 75 is the observed efficacy which is the same as individual epoxiconazole. There is no synergism.

Same applies on other examples.

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Response to Remarks

Applicant's arguments were fully considered but are not found persuasive for the reasons cited above in detail. Applicant may consider including the common names of the compounds of formula I, II-2 and II-4.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sabiha Qazi whose telephone number is (571) 272-0622. The examiner can normally be reached on any business day except Wednesday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Krass Frederick can be reached on (571) 272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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PRIMARY EXAMINER